

MORROW MOUNTAIN STATE PARK

PARK PROFILE

PARK PURPOSE STATEMENT

Morrow Mountain State Park was established in 1935 to protect and provide public access to representative examples of the unique biologic, geologic, archaeologic, scenic and recreational resources of the Uwharrie Mountains. The park resources and programs are intended to promote the knowledge, health and happiness of the residents and visitors of this region, both now and in the future. A significant portion of the park was donated to the state by local citizens, with the condition that the land be developed and used as a public park or revert back to the original owners.

The park's most significant geological resources are the monadnocks, low mountains composed of extrusive igneous rock and capped with rhyolite, an erosion-resistant volcanic rock. Morrow Mountain is the largest of several monadnocks in the park that represent the topography and geology of the ancient Uwharrie Mountains. Underlying the whole region is slate that formed 500 million years ago when volcanic ash settled to the bottom of a shallow sea.

Representative examples of significant biological resources in the park include high quality plant communities, diverse and abundant wildlife populations and a seasonal habitat for the bald eagle. The park protects a 1400-acre Registered Natural Area containing five plant communities: Piedmont Monadnock Forest, Dry-Mesic Oak-Hickory Forest, Mesic Mixed Hardwoods (Piedmont Subtype), Piedmont/Coastal Plain Heath Bluff and Piedmont/Low Mountain Alluvial Forest. The park's natural communities illustrate the dynamic nature of the forest ecosystem. The forest has been shaped by complex cycles of disturbance and regeneration resulting from natural causes, such as ice storms, wind storms, human activities and farming and timbering. The park protects natural processes as well as species and communities.

Significant archaeological resources include both prehistoric and historic features. The hard, fine-textured rhyolite found in the park was prized by Native Americans for making tools and points, and the park protects one of the most significant prehistoric quarry sites in the southeastern United States. The park also contains prehistoric camps, villages, burial grounds and seasonal fishing sites. Significant historic resources include the site of a ferry service crossing the Yadkin and Pee Dee Rivers, the homesite of horticulturalist Dr. Francis Kron and numerous rural farmsteads, homesites and graveyards.

The park provides opportunities to view a variety of significant scenic resources including mountain vistas, wildlife and lakefront areas. Morrow Mountain is the highest point in the park at 936 feet above sea level and 600 feet above the surrounding landscape. Lake Tillery forms the eastern boundary of the park, providing several miles of largely undeveloped lakefront.

Morrow Mountain State Park's visitor services encourage the public to use and enjoy the park. Recreational opportunities at Morrow Mountain are compatible with the protection of the park's unique natural resources. They promote family solidarity and provide for the education, health and happiness of all park visitors. Interpretation and education activities featuring the park's biologic, geologic and archaeologic resources are emphasized. The park's existing and potential trail system provides excellent access to the natural resources and also many opportunities to view wildlife. A variety of overnight accommodations and water-based activities encourage longer visits at the park.

PRIMARY INTERPRETIVE THEME

North Carolina's Only Volcanic Mountain Range: The Uwharrie Mountains are an ancient volcanic mountain range with a long history of human habitation. The rocks in the park are primarily light volcanic metamorphosed rock: rhyolite, basalt, greenstone and metamorphic slate. Rhyolite underlies most of the ridges and hills. Because of this rock's hardness, it was used extensively by Native Americans for making projectile points. Rhyolite tools have been found far from the park's location, from Maine to Florida and as far west as Ohio. Basalt, a magnesium and iron-rich rock, is found in the rounded boulders scattered throughout the park.

STATISTICS

Visitation (1999)	434,330
Operating Budget (FY 98-99)	\$ 476,818
Revenue (FY 98-99)	\$ 205,385

VISITOR FACILITIES

Tent & trailer camping (106 sites, showers, dumpstation, no hookups)	Cabins (6 units)
Primitive camping (4 sites)	Drinking water
Pool swimming (bathhouse)	Improved group camping (6 sites)
Picnic area (2 acres, 85 tables, 3 shelters)	Concession area
11 Hiking trails (16 miles total)	Lake fishing
Visitor center	Canoe and rowboat rental
3 Hiking/bridle trails (15 miles total)	Exhibit hall

CONSTRUCTION AND RENOVATIONS NEEDS

1	The trail renovation project will provide major renovation of all 15.9 miles of bridle trails, trail signage and an overlook tower.	\$ 776,909
2	The museum and environmental education center improvements project will convert the old museum to a state-of-the-art exhibits area. A new 3000 sq. ft. building will be constructed to provide auditorium, classroom, laboratory and toilets, and an outdoor EEC will connect the two buildings which will include exhibits, signage, ADA trail, ADA natural garden and fencing.	1,961,602
3	The Kron Complex repairs and cemetery stabilization project will provide minor repairs to all Kron site buildings and site renovation, and protective measures for the cemetery and surrounding area.	179,411
4	The masonry curbing and parking lot repair project will repair all the masonry curb and stone retaining walls throughout the park, adding 900 ft. of retaining wall at the top of the mountain.	220,366
5	The lodge renovation project includes major interior and exterior renovations to the historic lodge building.	1,001,049
6	The residence project will replace the 60-year-old superintendent residence.	218,855

7	The building renovations and repairs project will upgrade 7 buildings to current health and safety codes in accordance with the latest FIIP inventory.	194,785
8	The barracks replacement project will remove the existing substandard barracks and replace it with the new standard.	632,420
9	The summit area landscape improvements project will renovate the existing shelter, picnic sites and walkway system (to protect the cultural artifacts), and provide 6 interpretive exhibits at vista points.	437,963
10	The shoreline landscape improvements project will rework the launch area, add a foot bridge and an ADA accessible fishing pier, eliminate rip-rap in favor of “soft armor” shoreline stabilization, construct a curvilinear foot bridge to connect the lower and upper lot areas and redesign the lower lot for effective utilization of existing ramps.	648,095
11	The electrical renovation project will install 5 miles of new underground cable and 18 new transformers.	635,426
TOTAL:		<hr/> \$ 6,906,881

REGISTERED NATURAL HERITAGE AREA

Morrow Mountain Registered Natural Heritage Area: This area encompasses 1,400 acres on the southern end of the park and includes the slopes of Morrow Mountain. The area supports extensive second-growth forests dominated by oak and hickory species. Younger, successional forests are dominated by red cedar, shortleaf pine and Virginia pine. Lowland communities along the Yadkin-Pee Dee River support flood plain communities dominated by river birch. Other species include willow oak, green ash, sweet gum and sycamore. The Natural Heritage Program has identified five natural community types in this area: Piedmont/Low Mountain Alluvial Forest; Mesic Mixed Hardwood Forest (Piedmont Subtype); Piedmont Monadnock Forest; Dry-Mesic Oak-Hickory Forest; and Piedmont/Coastal Plain Heath Bluff.

POTENTIAL ADDITIONS TO REGISTERED NATURAL HERITAGE AREAS

Several additional areas within the park may be eligible for registry as Registered Natural Heritage Areas.

Biles Mountain: Prime examples of two uncommon natural communities are found on this ridge: Basic Oak-Hickory Forest and a variant of Upland Depression Swamp Forest. The former is about 100 acres in size and is dominated by Carolina shagbark hickory (*Carya carolinae-septentrionalis*). The quantity of Carolina shagbark hickories on this mountain makes it noteworthy. The community tentatively identified as Upland Depression Swamp Forest had about 0.5 acre of standing water at mid-summer and may qualify as an Upland Pool. It is dominated by willow oak (*Quercus phellos*) and shortbristle horned beakrush (*Rhynchospora corniculata*, a sedge). The site is a potential breeding habitat for one or more rare salamanders that should be surveyed during the appropriate season.

Mill Mountain: This area contains another variant of Piedmont Monadnock Forest with a greater diversity of oaks than many of the other monadnocks. Many of the oaks are over 20 inches in diameter at breast height (dbh). Like many of the monadnocks, Mill Mountain is too steep and unstable for development. The steepest slope is on the southeast side, providing nice vistas of the lake.

Tater Top Mountain: The steeper east side of this monadnock was previously included in the Registered Natural Area, but the best Piedmont Monadnock Forest is on the unregistered side. The mountain is mostly dominated by chestnut oak (Quercus montana), with many individuals over 20 inches dbh, but a nice diversity of other plants is also present, including spreading bladder fern (Cystopteris protrusa), downy serviceberry (Amelanchier arborea) and rusty haw (Viburnum rufidulum).

Sugarloaf Mountain: The lower slopes on the west and south sides show evidence of past logging, with shortleaf pine being common and only young oaks and hickories (mostly 12 inch dbh or less being present). This quickly grades into mature Piedmont Monadnock Forest dominated by chestnut oak (up to 29 inches dbh), with little evidence of disturbance. Mountain laurel (Kalmia latifolia) is common on the upper slopes.

Upland Depression Swamp Forest at the Head of Sugarloaf Mountain Trail: This swamp is larger and different from the one on Biles Mountain, being almost dry when the other one has standing water. The flora reflects the difference in topographic location and hydrology, with a canopy composed of five hardwood species and a more diverse understory and herb layer.

Fall Mountain and Extreme North End of the Park: This area should be thoroughly explored at a future time. Preliminary exploration at the extreme north end of the park showed the adjoining Alcoa property to have the best populations of Piedmont indigo-bush (Amorpha schwerinii).

FUTURE LAND ACQUISITION NEEDS

Completing the existing master plan for Morrow Mountain State Park will require the acquisition of 893 acres. Acquisition priorities are the visual and water quality protection along Mountain Creek on the south side of the park, inholdings on the southwest side of the park and a parcel on the north side of the park for access control.

Master Plan Total Acreage	5,586 acres
Current Park Acreage	<u>4,693 acres</u>
Acquisition Needs	893 acres

1999 STAFF POSITIONS

Permanent		Seasonal		Peak Load	
Park Superintendent III	1	Park Attendant	3	Park Attendant	2
Park Ranger II	2	Chief Lifeguard	1	Lifeguard	1
Park Ranger I	1	Lifeguard	5	Bathhouse Operator	2
Maintenance Mechanic IV	1	Bathhouse Manager II	1	Refreshment Stand Clerk	2
Maintenance Mechanic III	1	Refreshment Stand Manager I	1		
General Utility Worker	1	Refreshment Stand Clerk	3		
Office Assistant III	1	General Utility Worker	2		

PROPOSED STAFF ADDITIONS

Permanent		Seasonal		Peak Load	
Park Ranger III	1	General Utility Worker	1		
Park Ranger I	1	Park Attendant	2		